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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,537	01/23/2002	Robert S. Gammenthaler	1005.1008	6052

31814 7590 03/31/2006

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EXAMINER

VIEAUX, GARY

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,537

Applicant(s)

GAMMENTHALER, ROBERT S.

Examiner

Gary C. Vieaux

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Notification of Art Unit Change

Beginning in February 2006, Technology Center 2600, to which Art Unit 2612 belongs, began operating under a new structure in which the original 55 art units were consolidated into 17 art units. The applications and classifications covered by Art Unit 2612 are now the responsibility of Art Unit 2622. This change currently applies to the instant application, and therefore, all future correspondence should be directed to Art Unit 2622. Contact information is provided in the last section of this communication.

10

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 26, 2005 has been entered.

15

Response to Amendment

In response to the Office Action dated August 25, 2005, Applicant has cancelled claims 1-26. Claims 27-46 have been added.

20

Response to Arguments

Applicant's arguments with respect to claims 27-46 have been considered but are moot in view of the new ground(s) of rejection.

5

Claim Objections

Claim 27 is objected to because of the following informalities: the limitation "plurality of encryption key pairs" in line 21. There is insufficient antecedent basis for this limitation in the claim. For the purposes of evaluation of the claims on their merits, this limitation will be read to be "plurality of encryption and decryption key pairs" as previously employed in lines 2-3 of the claim.

10

Claim 32 is objected to because of the following informalities: line 3 includes the language "at least one the plurality", which should read "at least one of the plurality".

Appropriate correction is required.

15

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20

Claims 30, 34, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 30, 34, and 43, the language regarding key pairs being assigned to a group "that is highly unlikely to enter into a conspiracy" is indefinite, in that

this group is not delineated or characterized with any recognizable parameters to which its boundaries may be clearly defined.

Claim Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15 **Claims 27-29, 31, 33, 35, 37-39, 41-42, and 44-46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (US 5,497,419) in view of Davis 5,966,446, in further view of Examiner's Official Notice.

20 Regarding claim 27, Hill is found to teach an in-car video recording apparatus comprising a video camera (fig. 3 indicator 22; col. 4 lines 59-64), status information (fig. 1 indicators 11, 12, 14, 16, 18, 20, and 21; col. 8 lines 35-50), a microphone (col. 5 lines 20-25, in which audio capture is provided), a base unit (fig. 3 indicator 24; col. 8 lines 18-24) coupled to the camera and the microphone, and comprising a buffer and merge circuit functioning to merge (col. 9 lines 37-42) status information with the video data and buffer the resulting composite digital data (fig. 3 indicators 34 and 36; col. 8 line 60 – col. 9 line 15), a compression circuit for compressing the composite live digital video data stored in said buffer, and for compressing said audio data (fig. 1 indicator 36; 25 col. 9 lines 7-15; although not explicitly stated, the compression of the audio data is found to occur as demonstrated by later decompression of the audio signal, col. 11 lines

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47-52), means for recording the compressed live video digital data and the audio data onto a digital data recording medium (fig. 3 indicator 30; col. 8 lines 51-56.) Hill is also found to teach display means for displaying status information (fig. 6; col. 11 lines 8-15), but does not teach the display means coupled to the base unit. Because Hill also

5 teaches the potential of a real-time recording and playback system (col. 10 lines 47-48), it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate the two separate units taught by Hill, into one single base unit in order to eliminate the need to physically transfer the hard disk between units, to provide for recording and playback of video and audio data in a single location, and to provide for

10 real-time playback of the video and audio data so that the user, or an observer, may observe the events live, while they are also being recorded. Additionally, although Hill is found to teach anti-tampering means employing encryption keys (col. 6 lines 27-30), Hill does not explicitly disclose anti-tampering means for calculating a digital signature for the compressed live digital data and the audio data, and encrypting the digital signature

15 with at least one of a plurality of encryption and decryption key pairs.

Nevertheless, Davis teaches calculating a digital signature for digital video data and audio data, and encrypting the digital signature with an encryption and decryption key pair (col. 3 lines 8-21; col. 6 lines 23-25.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the digital signature with an

20 encryption and decryption key pair as taught by Davis within the apparatus as taught by Hill in order to further insure the integrity of the data.

Furthermore, Official Notice is taken regarding associating a more than one encryption and decryption key pairs with an apparatus and with more than one designated individual; concepts that are well known and expected in the arts of data security and cryptography. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a plurality of encryption and decryption key pairs with the apparatus as taught by Davis and Hill so that the data can be accessed by these multiple individuals.

Regarding claim 28, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 28 (see the 103(a) rejection to claim 27 supra) including disclosing a teaching by Hill wherein the base unit further comprises means for monitoring for occurrence of physical phenomenon which indicates that the encrypted digital signature has been improperly altered ('419 – col. 7 lines 6-10.)

Regarding claim 29, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 29 (see the 103(a) rejection to claim 27 supra) including disclosing a teaching by Hill wherein the base unit further comprises means for monitoring for occurrence of electrical phenomenon which indicates that the encrypted digital signature has been improperly altered ('419 – col. 6 lines 61-66.)

Regarding claim 31, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 31 (see the 103(a) rejection to claim 27 supra) except for explicitly disclosing wherein different individuals are assigned the plurality of encryption and decryption key pairs from a group of individuals consisting of patrolmen, evidence officers, officers, and judges. However, Hill does teach employing the apparatus within

the vehicle of public safety personnel and securing data to insure the chain of evidence in courts of law (col. 1 lines 50-52; col. 5 lines 16-20.)

Examiner's Official Notice is also taken regarding the concept that individuals associated with the normal chain of evidence in courts of law include patrolmen, evidence officers, officers, and judges. It would have been obvious to one of ordinary skill in the art at the time of the invention to assign the key pairs to individuals from a group of individuals consisting of patrolmen, evidence officers, officers, and judges, in order to maintain the integrity of data with an evidentiary chain.

Regarding claim 33, Hill teaches a system for tamper-proofing digital data that comprises recording surveillance video digital data on recording medium (fig. 3 indicator 30; col. 8 lines 51-56), employing encryption keys (col. 6 lines 27-30), performing encryption (fig.1 indicator 34; col. 9 lines 10-15) and decryption (fig.6 indicator 144; col. 11 lines 15-28.) Hill does not explicitly disclose the system being in a police patrol car, but does teach the system employed within the vehicle of public safety personnel, as well as securing data to insure the chain of evidence in courts of law (col. 1 lines 50-52; col. 5 lines 16-20.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the system in a police patrol car, which is a public safety personnel vehicle, for the purposes of documenting and securing events for use in court proceedings. Hill also does not disclose employing a digital signature within the system.

Nevertheless, although Hill also does not disclose employing a digital signature within the system, Davis is found to teach calculating a digital signature for digital video data, and encrypting the digital signature with an encryption and decryption key pair

(col. 3 lines 8-21; col. 6 lines 23-25.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ encrypting the digital signature with an encryption and decryption key pair as taught by Davis in concert with the apparatus as taught by Hill in order to further insure the integrity of the data.

5 Furthermore, Official Notice is taken regarding associating more than one encryption and decryption key pairs with an apparatus and with more than one designated individual; concepts that are well-known and expected in the art of data security and cryptography. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a plurality of encryption and decryption key pairs
10 with the apparatus as taught by Davis and Hill so that the data can be accessed by these multiple individuals.

Regarding claim 35, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 35 (see the 103(a) rejection to claim 33 supra) except for explicitly disclosing wherein different individuals are assigned the plurality of encryption and
15 decryption key pairs from a group of individuals consisting of patrolmen, evidence officers, officers, and judges. However, Hill does teach employing the apparatus within the vehicle of public safety personnel and securing data to insure the chain of evidence in courts of law (col. 1 lines 50-52; col. 5 lines 16-20.)

 Examiner's Official Notice is also taken regarding the concept that individuals
20 associated with the normal chain of evidence in courts of law include patrolmen, evidence officers, officers, and judges. It would have been obvious to one of ordinary skill in the art at the time of the invention to assign the key pairs to individuals from a

group of individuals consisting of patrolmen, evidence officers, officers, and judges, in order to maintain the integrity of data with an evidentiary chain.

Regarding claim 37, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 37 (see the 103(a) rejection to claim 33 supra) including disclosing a teaching by Hill regarding recording audio signals in conjunction with the digital data and digital signature ('419 – col. 5 lines 20-25, in which audio capture is provided.)

Regarding claim 38, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 38 (see the 103(a) rejection to claim 33 supra) including disclosing a teaching by Hill regarding recording status information in conjunction with the digital data and digital signature ('419 – fig. 1 indicators 11, 12, 14, 16, 18, 20, and 21; col. 8 lines 35-50.)

Regarding claim 41, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 41 (see the 103(a) rejection to claim 39 infra) including a teaching by Hill of monitoring for the occurrence of a physical phenomenon indicating improper alteration ('419 – col. 7 lines 6-10.)

Regarding claim 42, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 42 (see the 103(a) rejection to claim 39 infra) including a teaching by Hill of monitoring for the occurrence of an electrical phenomenon indicating improper alteration ('419 – col. 6 lines 61-66.)

Regarding claims 45 and 46, although the wording is different, the material is considered substantively equivalent to claims 41 and 42, respectively, as discussed above.

Claims 32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (US 5,497,419) in view of Davis 5,966,446, in view of Examiner's Official Notice, in further view of Hansmann et al. (US 6,892,301.)

Regarding claim 32, Hill, Davis, and Examiner's Official Notice disclose all of the
5 limitations of claim 32 (see the 103(a) rejection to claim 27 supra) except for teaching wherein the base unit further comprises a key port for receiving by insertion a key chip having at least one of the plurality of encryption key pairs installed thereon.

Nevertheless, Hansmann teaches employing a key port receiving a key chip with a key installed thereon (fig. 1; col. 8 lines 5-22.) It would have been obvious to one of
10 ordinary skill in the art at the time of the invention to employ a key chip and receiving port as taught by Hansmann with the apparatus as taught by Hill, Davis, and Examiner's Official Notice in order serve as an access control medium, allowing a user to access the system data.

Regarding claim 36, Hill, Davis, and Examiner's Official Notice disclose all of the
15 limitations of claim 36 (see the 103(a) rejection to claim 33 supra) except for teaching wherein at least one controller further comprises a key port for receiving by insertion a key chip having at least one of the plurality of encryption key pairs installed thereon.

Nevertheless, Hansmann teaches employing a key port receiving a key chip with a key installed thereon (fig. 1; col. 8 lines 5-22.) It would have been obvious to one of
20 ordinary skill in the art at the time of the invention to employ a key chip and receiving port as taught by Hansmann with the system as taught by Hill, Davis, and Examiner's

Official Notice in order serve as an access control medium, allowing a user to access the system data.

Claims 39 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable
5 over Hill (US 5,497,419) in view of Davis 5,966,446, in view of Examiner's Official
Notice, in further view of Davis et al. (US 5,577,121.)

Regarding claim 39, Hill teaches a method for tamper-proofing digital data that
comprises recording video and audio signals with surveillance equipment (fig. 3
indicator 22; col. 4 lines 59-64; col. 5 lines 20-25, in which audio capture is provided),
10 storing the data on a digital data recording medium (fig. 3 indicator 30; col. 8 lines 51-
56.) Hill does not explicitly disclose the method being applied within a police patrol car,
but does teach the system employed within the vehicle of public safety personnel, as
well as securing data to insure the chain of evidence in courts of law (col. 1 lines 50-52;
col. 5 lines 16-20.) It would have been obvious to one of ordinary skill in the art at the
15 time of the invention to employ the system in a police patrol car, which is a public safety
personnel vehicle, for the purposes of documenting and securing events for use in court
proceedings. Hill also does not disclose employing a digital signature with this data, or
performing multiple encryption and decryption operations on the digital signature with at
least one of the encryption and decryption key pairs within the method, however, Hill is
20 found to teach anti-tampering means employing encryption keys (col. 6 lines 27-30.)

Nevertheless, Davis teaches calculating a digital signature for video and audio
signals, and encrypting the digital signature with an encryption and decryption key pair

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(col. 3 lines 8-21; col. 6 lines 23-25.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the digital signature with an encryption and decryption key pair as taught by Davis within the method as taught by Hill in order to further insure the integrity of the data.

5 Official Notice is taken regarding associating a more than one encryption and decryption key pairs with an apparatus and with more than one designated individual; concepts that are well known and expected in the art of data security and cryptography. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a plurality of encryption and decryption key pairs with the apparatus as taught
10 by Davis and Hill so that the data can be accessed by these multiple individuals.

 Furthermore, Official Notice is also taken regarding the practice of performing multiple encryption operations on an encryption; a concept that is well known and expected in the art of data security and cryptography. It would have been obvious to one of ordinary skill in the art at the time of the invention to perform multiple encryptions
15 of the digital signature (and the corresponding decryptions) with at least one of the encryption key pairs in order to increase the difficulty in defeating the encryption security measures insuring the data integrity by way of multiple encryption layers.

Regarding claim 44, although the wording is different, the material is considered substantively equivalent to claim 39, as discussed above.

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Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (US 5,497,419) in view of Davis 5,966,446, in view of Examiner's Official Notice, in view of Davis et al. (US 5,577,121), in further view of Washino et al. (US 5,625,410.)

Regarding claim 40, Hill, Davis, and Examiner's Official Notice disclose all of the limitations of claim 40 (see the 103(a) rejection to claim 39 supra) except for teaching recording the digital data and encrypted digital signature on multiple recording mediums in the process of performing the multiple encrypting and decrypting operations on the encrypted digital signature.

Nevertheless, Washino teaches recording onto multiple recording mediums (col. 6 lines 28-40.) It would have been obvious to one of ordinary skill in the art at the time of the invention to make multiple recordings as taught by Washino of the digital data and encrypted digital signature being recorded by the method as taught by Hill, Davis, and Examiner's Official Notice, in order to either create a backup to the data or to produce a comparative copy to which authenticity may be judged against, therefore making it more difficult to defeat the integrity of the data.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. (US 6,170,744) discloses encoding/decoding a digital signature via key pairs.

Lorenzetti et al. (US 6,028,528) discloses a police vehicle surveillance system.

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Davis (US 5,825,879) disclosed digital video encryption.

Epstein (US 6,601,172) discloses encoding/decoding a digital signature via key pairs.

5

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen T. Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER

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